

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A method of content substitution, comprising:
 - receiving data representing video content, the data having a plurality of packet identifiers (PIDs) where each PID is associated with one or more macroblocks of original content;
 - initiating processing of content having the first PID;
 - determining that a substitution criterion has been met to substitute one or more macroblocks of original content, where the one or more macroblocks constitute less than an entire video frame of macroblocks;
 - substituting the one or more macroblocks having a second PID for the one or more macroblocks having a first PID; and
 - processing the substituted content.
2. (Original) The method according to claim 1, carried out in a decoder forming a part of a television Set-top box.
3. (Original) The method according to claim 1, carried out in a hardware state machine.
4. (Original) The method according to claim 1, carried out in a programmed processor.
5. (Original) The method according to claim 1, wherein the substitution criterion is met as a result of receipt of a flag.
6. (Original) The method according to claim 1, wherein the substitution criterion is met as a result of an operator input.
7. (Original) The method according to claim 1, wherein the processing comprises playing the content.

8. (Original) The method according to claim 1, wherein the substituting comprises using private signaling to select the macroblock of content with the second PID and discarding the macroblock of content with the first PID.

9. (Original) The method according to claim 1, wherein the substituting comprises using private signaling to select the macroblock of content on the second PID while receiving the macroblock with the first PID.

10. (Original) The method according to claim 1, wherein substituting is initiated and terminated by private signaling forming part of an adaptation layer of packets in a data stream.

11. (Original) The method according to claim 10, wherein the adaptation layer is in a packet with the second PID.

12. (Original) The method according to claim 10, wherein the adaptation layer is in a packet with the first PID.

13. (Original) The method according to claim 10, wherein the adaptation layer is in a packet that is neither the second nor the first PID.

14. (Original) A computer readable medium storing instructions which, when executed on a programmed processor, carry out the content substitution method according to claim 1.

15. (Currently Amended) A method of content substitution, comprising:

receiving data representing content, the data having a plurality of packet identifiers (PIDs) associated with one or more macroblocks of original content and one or more macroblocks of substitution content, where the one or more macroblocks of substitution content constitutes less than an entire video frame of macroblocks;

placing content having a primary PID into a data stream;

receiving an initiation flag indicating initiation of a PID mapping operation;
mapping content having a secondary PID to a primary PID and placing the mapped content into the data stream;
receiving a termination flag indicating termination of the PID mapping operation; and
continuing to place content having a primary PID into the data stream.

16. (Original) The method according to claim 15, carried out in a decoder forming a part of a television Set-top box.

17. (Original) The method according to claim 15, carried out in a hardware state machine.

18. (Original) The method according to claim 15, carried out in a programmed processor.

19. (Original) The method according to claim 15, wherein the substitution criterion is met as a result of receipt of a flag.

20. (Original) The method according to claim 15, wherein the substitution criterion is met as a result of an operator input.

21. (Original) The method according to claim 15, wherein the substituting comprises using private signaling to select the macroblock of content with the secondary PID and discarding the macroblock of content with the primary PID.

22. (Original) The method according to claim 15, wherein substitution is initiated and terminated by private signaling forming part of an adaptation layer of packets in a data stream.

23. (Original) The method according to claim 22, wherein the adaptation layer is in a packet with the one of the primary PID and the secondary PID.

24. (Original) The method according to claim 22, wherein the adaptation layer is in a packet that has neither the secondary nor the primary PID.

25. (Original) A computer readable medium storing instructions which, when executed on a programmed processor, carry out the content substitution method according to claim 15.

26. (Currently Amended) A content substitution encoder, comprising:

means for receiving input data representing at least one macroblock of main content;

means for receiving input data representing at least one macroblock of substitution content, where the one or more macroblocks of substitution content constitutes less than an entire video frame of macroblocks;

means for initiating a packet identifier (PID) mapper that assigns a primary PID to the main content and assigns a secondary PID to the substitution content;

means for initiating a private data generator that generates user private data that identifies the main content by the primary PID and substitution content by the secondary PID; and

means for assembling the private data, the main content mapped to the primary PID and the substitution content mapped to the secondary PID into a data stream.

27. (Original) The content substitution encoder according to claim 26, implemented using a programmed computer.

28. (Currently Amended) A decoder, comprising:

a receiver receiving data that represents content, the data having a plurality of packet identifiers (PIDs) associated with one or more macroblocks of original content and one or more macroblocks of substitution content, where the one or more macroblocks of substitution content constitutes less than an entire video frame of macroblocks;

a content decoder configured to play content having the first PID;

a controller that determines that a substitution criterion has been met to substitute one or more macroblocks of original content; and

a PID mapper that maps content having the second PID to the first PID so that the content originally having the second PID is played.

29. (Original) The decoder according to claim 28, wherein the decoder resides in a television Set-top box.

30. (New) A television set-top box decoder, comprising:

a receiver receiving data that represents content, the data having a plurality of packet identifiers (PIDs) associated with one or more macroblocks of original content and one or more macroblocks of substitution content, where the one or more macroblocks of substitution content constitutes less than an entire video frame of macroblocks;

a content decoder configured to play content having the first PID;

a state machine controller and PID mapper in which the controller determines that a substitution criterion has been met to substitute one or more macroblocks of original content, and the PID mapper maps content having the second PID to the first PID so that the content originally having the second PID is played;

wherein the state machine controller determines that the substitution criterion is met as a result of receipt of a flag forming a part of an adaptation layer of packets in the data received by the receiver, where the adaptation layer is in a packet having one of the first and second PIDs;

wherein the substituting comprises using private signaling to select the macroblock of content with the secondary PID and discarding the macroblock of content with the primary PID.

31. (New) A method of content substitution, comprising:

receiving data representing video content, the data having a plurality of packet identifiers (PIDs) where each PID is associated with one or more macroblocks of original content;

receiving mode data representing a content substitution mode of operation of a decoder, where the content substitution mode represents one of a plurality of content substitution modes;

initiating processing of content having the first PID;

determining that a substitution criterion has been met to substitute one or more macroblocks of original content, where the one or more macroblocks constitute less than an entire video frame of macroblocks;

selecting a content substitution mode of the decoder based on the mode data;

substituting the one or more macroblocks having a second PID for the one or more macroblocks having a first PID; and

processing the substituted content.

32. (New) The method according to claim 31, wherein the substitution criterion is met as a result of receipt of a flag.

33. (New) The method according to claim 31, wherein the substitution criterion is met as a result of an operator input.

34. (New) The method according to claim 31, wherein substituting is initiated and terminated by private signaling forming part of an adaptation layer of packets in a data stream.

35. (New) The method according to claim 31, wherein the plurality of substitution modes comprise a one to one insertion mode, a multi for one insertion or deletion mode and a one for one substitution mode.

36. (New) A computer readable medium storing instructions which, when executed on a programmed processor, carry out the content substitution method according to claim 31.

37. (New) A decoder, comprising:

a receiver receiving data that represents content, the data having a plurality of packet identifiers (PIDs) associated with one or more macroblocks of original content and one or more macroblocks of substitution content, where the one or more macroblocks of substitution content constitutes less than an entire video frame of macroblocks;

the receiver further receiving mode data representing a content substitution mode of operation of a decoder, where the content substitution mode represents one of a plurality of content substitution modes;

a content decoder configured to play content having the first PID;

a controller that determines that a substitution criterion has been met to substitute one or more macroblocks of original content, and that further selects a content substitution mode of the decoder based on the mode data; and

a PID mapper that maps content having the second PID to the first PID so that the content originally having the second PID is played.

38. (New) The method according to claim 37, wherein the plurality of substitution modes comprise a one to one insertion mode, a multi for one insertion or deletion mode and a one for one substitution mode.